

(b) and (c) There is a proposal to include the stretch between Dobhi, Gaya, Jahanabad, Patna of NH-83 in NHDP-III.

### Six laning of NH 5

383. SHRI S.M. LALJAN BASHA: Will the Minister of SHIPPING, ROAD TRANSPORT AND HIGHWAYS be pleased to state:

- (a) whether Government propose to make NH 5 a six lane highway within the next two years;
- (b) if so, whether any traffic study regarding the need for a six lane highway has been done;
- (c) whether cost-benefit studies would be done before embarking on huge investments; and
- (d) the steps proposed to avoid six laning where there is little traffic?

THE MINISTER OF STATE IN THE MINISTRY OF SHIPPING, ROAD TRANSPORT AND HIGHWAYS (SHRI K.H. MUNIYAPPA): (a) to (d) Government has approved six laning of Golden Quadrilateral (which includes NH-5) on those stretches where traffic is more than a thereshold level.

### Foreign officers to man ships

384. SHRI S.M. LALJAN BASHA: Will the Minister of SHIPPING, ROAD TRANSPORT AND HIGHWAYS be pleased to state:

- (a) whether the shipping industry has appealed to Government to allow it to hire foreign officers to man their ships;
- (b) the details of such representations pending with DG, Shipping;
- (c) the manner in which Government would help the shipping sector find all categories of crew; and
- (d) the details of demands in this regard and the reaction of Government thereon?

THE MINISTER OF SHIPPING, ROAD TRANSPORT AND HIGHWAYS (SHRI T.R. BAALU): (a) to (d) The Indian National Shipowners Association (INSA) has requested the Directorate General of Shipping to allow foreign

officers to work on Indian ships in view of acute shortage of Indian officers. In order to overcome the shortage, the Government is considering a proposal to allow foreign officers to work on Indian ships subject to certain conditions.

### **Data transmission by satellites**

**385. SHRIMATI JAYA BACHCHAN:** Will the PRIME MINISTER be pleased to state:

- (a) the details of satellites launched on 10th January, 2007 and functions assigned to each of them;
- (b) the details in respect of data/pictures etc. transmitted by them, so far; and
- (c) the details of fields where the data would be utilised or is proposed to be utilised?

**THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (SHRI PRITHVIRAJ CHAVAN):** (a) Polar Satellite Launch Vehicle (PSLV-C7) launched on 10th January, 2007, carried 4 satellites viz., (i) CARTOSAT-2 for Cartography (ii) Space Capsule Recovery Experiment (SRE) to demonstrate our capability to recover an orbiting capsule safely back on earth and also for conducting long duration micro gravity experiments (iii) LAPAN-TUBSAT—a 55 Kg Video Surveillance Satellite belonging to Indonesia and (iv) NANO-PEHUENSAT-1 of Argentina meant for carrying out amateur radio experiments.

(b) and (c) India's CARTOSAT-2, carrying a Panchromatic camera (PAN) with a resolution of better than 1 m and a swath of 9.6 km. has given satisfactory images over India and other parts of the Globe. CARTOSAT-2 data will be useful for detailed large scale mapping applications and will be utilized for various urban and rural infrastructure development purposes as well as for Land Information System (LIS) and Geographical Information System (GIS).

India's Space capsule Recovery Experiment (SRE-I), a 550 kg. capsule, demonstrated the technology for performing experiments in microgravity conditions and bringing them back. SRE-1 also provided valuable data during the re-entry and recovery operations.